

white and red blood-corpuscles. The reaction at times was acid, indicating the presence of gastric juice; at times alkaline, when the fluid elements were mostly saliva. The proportion of blood to saliva was about one to twelve.

It seems probable that the blood can come from the stomach, the tonsils, or the tongue.—*Gazette Médicale de Paris*, February 1, 1896.

HERPES FACIALIS AS A SYMPTOM OF BACTERIAL INTOXICATION.

FRIEDREICH (*Berlin. klin. Wochenschrift*, 1895, Nos. 49 and 50) made some experiments with cultures of streptococci, as used by Coley in the treatment of malignant disease. In seven cases herpes facialis was observed. All these were cases in which sterilized cultures of streptococcus and prodigiosus were used. The eruption appeared not earlier than thirty nor later than fifty-eight hours after injection, and in two cases was followed by recidiva. As there was no infection in these cases, the herpes must be looked on as due to intoxication.

THE BLOOD IN A CASE OF METASTATIC CANCER OF THE BONE.

J. EPSTEIN (*Zeitschrift für klin. Med.*, Bd. xxx. H. 1 and 2) has studied the condition of the blood in a case of scirrhus of the mamma with extensive metastases, including the marrow of many bones. The red corpuscles showed great variation in size, from 5 to 10 micromillimetres; there were many nucleated red corpuscles, including many megaloblasts with bizarre nuclei. The bodies of the red corpuscles showed degeneration. The leucocytes were greatly increased—from one to twenty-five to one to forty red. There were large neutrophile marrow-cells. Only two eosinophile cells were present. Epstein thinks the condition of the leucocytes was due, not to the cancer alone, but to atypical growths of blood-forming tissue in the marrow.

A CASE OF DIPHTHERIA TREATED WITH CONCENTRATED SERUM, WITH REMARKABLE SYMPTOMS.

AUERSBACH (*Centralblatt für innere Med.*, 1896, No. 18) saw a patient on the second day of a moderately severe diphtheria, with a dirty-green membrane on the tonsils and palatal arches, painful swellings in the neck, and a temperature of 103° F. He injected 2 c.cm. of concentrated serum, equivalent to 100 units. The temperature fell, but the membrane extended. Liquor ferri was swabbed locally, and the membrane finally disappeared by the tenth day. The swelling in the neck increased so much that suppuration was feared. A second injection was being considered when, on the fourth day, a typical erythema exudativum seu nodosum appeared over both ankles, with great pain and œdema. Next day a similar eruption appeared over the smaller joints of the feet, the knees, and hips, with swelling in the joints. There was also a scarlatinous eruption on the back. During the next few days the eruption involved the joints of the arms, so that all motion was painful. Slight fever continued all this time. Menstruation appeared and was excessive. Albuminuria was present, without casts, and continued up to the time of the report, two months later. The erythema and joint-symptoms

were not affected by sodium salicylate. On the twenty-third day the symptoms seemed to be disappearing, but on the twenty-fourth periostitis began on the tibia and ulna, and lasted a week. No explanation seemed possible for the remarkable complications in this case.

SURGERY.

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CATGUT-STERILIZATION.

HOFMEISTER (*Centralblatt für Chirurgie*, 1896), after referring to the different methods of catgut-sterilization that have been employed in Braun's clinic at the University of Tübingen, recommends the following process, the value of which depends upon the capability of formalin of acting on lime-substances so that they lose their solubility in boiling water:

1. Harden the raw catgut, which has been previously wrapped upon rolls, in 4 per cent. solution of formalin for twenty-four hours.
2. Boil in water for ten minutes.
3. Harden again in the formalin solution and preserve in alcohol, to which 5 per cent. glycerin and 1 per cent. sublimate or other antiseptic in suitable quantity has been added. The strands remain from the beginning of the sterilization on the same rolls, so that touching with the fingers may be avoided. It is necessary to wind the catgut before beginning the sterilization, because the loose catgut rings entangle when placed in the solution and in boiling become converted into unravelled balls. When putting the rolls into the solution of formalin much care has to be taken to remove the great number of air-bubbles which remain among the strands, so as to have the finished preparation uniformly firm. The tensile strength of the sterilized threads which were examined with a dynamometer compared favorably with the raw catgut.

Bacteriologic investigation showed the prepared catgut to be free from spores.

In the *Semaine Médicale*, 1896, No. 3, there is a note in which HLAVACZEK also confirms the fact of the resistance of formalin catgut, and states that the Society of Physicians at Vienna proposes a procedure which resembles the one described, both of which are in confirmation of Hofmeister's studies.

MODERN METHODS OF GASTROSTOMY.

CHAYASSE, in a clinical lecture on this subject (*The Lancet*, London, 1896, vol. ii. No. 1), describes the following modern operations: (1) Hahn's, 1890; (2) Witzel's, 1891; and (3) Albert's, 1892.

In Hahn's method the abdomen is opened by a transverse incision below the ribs, and, the stomach having been exposed, a second incision is made in the left eighth intercostal space, through which the organ is drawn out and fastened between the cartilages; it is then opened. The idea is that the ribs will act as a stopcock and so prevent leakage. In the only example the author saw of this method this object was not attained during the ten days the patient survived the operation, and it certainly appeared to give rise to more pain than the ordinary operation; it is also possible to wound the pleura or the diaphragm, or a necrosis of the cartilages may subsequently supervene.

In Witzel's method the primary incision commences in the middle line, a finger's-breadth below the left costal cartilages, and is carried transversely outward for three or four inches. The rectus muscle having been laid bare, its fibres are separated by the handle of the scalpel, held apart by retractors, and the peritoneal cavity opened. A portion of the stomach is now drawn outside, packed around with warm sponges, and opened on its anterior surface by a small incision placed near its cardiac end, sufficient to permit the introduction of a fair-sized drainage-tube. The tube should be about five inches long, and about one inch of it should be inserted into the cavity of the stomach and anchored there by two or more sutures which penetrate the muscular and peritoneal coats of the organ and the India-rubber tube so as not to open its calibre. Silk sutures are next passed half an inch from the tube through the muscular and peritoneal coats of the stomach, over the tube and through the corresponding coats on the other side of it. From four to six sutures may be so inserted, but all should be passed before any tying is attempted. When this is done the tube will be found encased in a peritoneal funnel, except at its upper part. If necessary, other superficial sutures may be added between the deeper ones. Four or five silk sutures on either side are next employed to secure the viscus to the cut edges of the abdominal wall, and the wound is lightly packed with iodoform-gauze. If deemed necessary, milk or other nutriment may now be injected through the tube; but it is preferable to wait twenty-four hours, when some adhesions will have formed.

Albert's method: An incision two fingers'-breadth below the margin of the left ribs is carried downward and outward over the rectus muscle for three or four inches, and its fibres having been exposed are separated vertically toward the inner edge of the muscle by the handle of the scalpel or some blunt instrument. The peritoneal cavity having been opened, a sufficient portion of the stomach to reach the costal cartilages is drawn out of the abdomen. It is then anchored in that position by stitching with continuous or interrupted silk sutures on each side of the serous and muscular coats of the organ to the parietal peritoneum and the posterior layer of the rectal sheath. Through the skin at the level of the cartilages, about one inch from the outer edge of the wound in the parietes, a small incision, half

an inch long, is made, and a bridge undermined between this and the primary incision. Under this subcutaneous bridge the extruded portion of the stomach is drawn upward, and a small opening having been made into its cavity by incising its anterior wall, the edges of this mouth are secured by four or more fixation-sutures to the edges of the small skin-wound. The first incision in the abdominal wall is then completely closed. As a result of this procedure a portion of the stomach becomes subcutaneous, is bent forward, and forms a sort of artificial oesophagus, the back of which is gripped by the muscular fibres of the rectus, which act as a sphincter.

The chief difficulty experienced by patients after gastrostomy has been the leakage from the fistula, especially during the process of digestion. As a consequence, the skin around the orifice becomes the seat of a chronic eczema, which is very troublesome to the patient.

In comparing Witzel's and Albert's operations the author states that one is as readily performed as the other, but occasional difficulty will be experienced in drawing the stomach forward and upward sufficiently in the latter method on account of the organ being fixed by the neoplasm. More gastric and general disturbance follows its performance than that of Witzel's, due to the necessary traction on the stomach-wall. The opening into the viscus is also apt to contract somewhat under the bridge of skin. When complete, however, it has the advantage over Witzel's method in that no tube need be worn. It would be more difficult, the author states, to close the fistula, if required, after Albert's than after Witzel's operation; but in most cases the operator desires the opening to remain permanently. Both methods give satisfactory results as regards the absence of leakage, and both are very distinct advances on the older methods.

THE OPERATIVE TREATMENT OF DILATATION OF THE STOMACH.

EWART and BENNETT describe in *The Lancet*, London, 1896, vol. ii. No. 1, an operation for dilatation of the stomach which they believe to be new.

The abdomen having been opened by a median incision about five inches long, commencing above at a point an inch below the ensiform appendix, the stomach was thoroughly examined by the hand introduced through the wound. No adhesions were detected and the pylorus was normal. The viscus was then drawn out of the abdomen and laid upon the parietes, where it presented a large balloon-like bag distended with gas. A fold on the anterior aspect of the stomach was then turned in by the fingers of the assistant. The length of this fold, which followed the direction of the long axis of the stomach, was about twelve inches, its greatest depth being about three inches. While this fold was held involuted by the assistant's fingers the peritoneal surfaces on the opposite sides of its base were brought together by numerous sutures made to transfix the peritoneal and muscular coats, the fingers of the assistant being gradually withdrawn from the fold before the tightening up of the final stitches. After the stitches had all been fastened off the size of the stomach was greatly lessened. Mr. Bennett had intended to make a small secondary involution at the great end of the stomach to prevent the otherwise inevitable dependent tendency of that part; but as the patient was in a very unsatisfactory condition generally, it

knowledge is still required, however, in (1) the accurate diagnosis of the occurrence of perforation; (2) the most favorable period for surgical interference; and (3) the best method of dealing with (a) the perforation when found, and (b) the extravasation into and infection of the peritoneum. The mortality in these operations, as has been shown by Weir, bears a direct relation to the time that has elapsed between the perforation and the operation. The author does not consider it wise to wait until the shock which follows the perforation has passed off. He recommends the administration of whiskey and hot water by the rectum and strychnine hypodermatically, and to proceed at once with the operation. The ulcer is best dealt with by simply invaginating by means of Lembert sutures. A considerable area of stomach-wall should be included in the suture. If the perforation is in the neighborhood of the pylorus, this may entail an undesirable degree of stenosis if the suture-line corresponds with the long axis of the stomach. In such cases it is better to make the suture-line at right-angles to the axis of the pylorus, after the principle of the Heinecke-Mikulicz operation for pyloric stenosis. The extravasation into the peritoneal cavity is best dealt with by a copious flushing with saline solutions at a temperature of from 105° to 110° F. If there is general infection of the peritoneum, the author drains by means of tubes the pouch of Douglas, and, if necessary, a tube is passed through an incision in the loin below the right kidney to drain the lumbar pouch. A tube may be placed to drain the area around the ulcer, but this is the least important of the three.

RUPTURE OF THE URETHRA TREATED BY IMMEDIATE SUTURE AND BLADDER-DRAINAGE.

WEIR reports (*Medical Record*, New York, 1896, vol. xlix. No. 19) two cases in which he performed immediate suture for rupture of the urethra—one on the fourth day, and the other thirteen hours after the injury. In the first of these a small suprapubic opening was made in the bladder, and a soft-rubber catheter inserted for drainage.

The following is a summary of the article:

1. In an injury of the perineum with painful or difficult urination, accompanied with a free flow of blood, with or without a perineal or scrotal swelling, a free perineal incision should be made and the urethra exposed. 2. If this canal be ruptured partially or totally, the separate ends should be sewed together with silk or catgut. 3. Drainage of the bladder should be employed either by a catheter by the urethra, or preferably by a suprapubic opening. To aid in carrying out the latter Cathcart's or Dawbarn's method of siphonage should be employed.

The author prefers pure silk for sutures, with which he includes the mucous membrane and other coats of the urethra. These are supplemented by two or three extra urethral sutures to relieve the tension on the urethral sutures. One or both ends are left long and are brought out of the wound so that traction may be made on them at the end of a week or ten days. Weir was much impressed with the value of bladder-drainage after the method devised by Cathcart.

In the cases of complete rupture of the urethra in which the vesical end cannot be found, it is recommended to douche the wound for five or ten

minutes with hot antiseptic solution, when the divided urethra will be more or less distinctly revealed.

THE TREATMENT OF IRRITABLE SPINE.

Under this title GIBNEY (*Medical Record*, New York, 1896, vol. xlix. No. 19) includes those cases variously described as spinal hyperæmia, spinal necrosis, and hysterical spine. These cases usually exhibit spinal tenderness, various pains in the course of the nerves, a weak back, fatigue on little exertion, lack of symmetry between the scapulae, obliquity of the pelvis, etc. The author describes a typical case as follows:

"A lady who has borne one or two children has for a year or more complained of her back; has had remissions of pain followed by rather sharp exacerbations; has been quite active at times; has presented a tenderness over the spinous processes and lateral masses, with pains occasionally in the course of the lumbar or lumbosacral nerves, and has gotten into the habit of standing awkwardly in order to rest herself. This awkward position has produced an obliquity of the pelvis and a compensatory scoliosis, a simple, lateral deviation of the column. I find her fairly well nourished and get a pretty good history negatively of the internal organs. Examination of the column reveals, as just indicated, a lateral curvature in the lumbar region to the right or left side, very slight, and an inequality of the iliocostal spaces, also very slight; sometimes a lack of symmetry between the scapulae, sometimes an antero-posterior curvature of the spine, the correction of which causes increased pain in the back, a spinal tenderness, and sometimes tenderness on concussion. By equalizing the two sides of the pelvis I am able usually to demonstrate the compensatory nature of the curvature, and by testing the columns as to flexibility I am able to rule out any bone-lesion."

It is frequently necessary to distinguish these cases from curvature of the spine.

The treatment consists in counter-irritation, the administration of tonics, graded exercises, out-of-door life, and, in obstinate cases, a spinal assistant. As a counter-irritant the author prefers the Paquelin cautery, applied with very light strokes three times a week for a month or six weeks. In some cases he uses fly-blisters or mustard-plasters, the latter being applied every night for one or two weeks. After the immediate effects of the counter-irritant have passed it is recommended to apply strips of adhesive plaster over the sensitive area. They are cut three or four inches long and one inch wide, and are arranged criss-cross over the spinous processes.

A NEW APPARATUS FOR IMMEDIATE AND PERMANENT DRAINAGE OF THE URINARY BLADDER AFTER SUPRAPUBIC CYSTOTOMY.

BLOODGOOD describes in the *Bulletin of the Johns Hopkins Hospital*, 1896, vol. vii. No. 61, an apparatus which he has found to drain effectually the urinary bladder after suprapubic cystotomy. It prevents leakage of urine and the consequent soiling of the patient and irritation of the surrounding skin which are so constantly observed in these cases.

The apparatus consists of a rubber-bag reservoir, 18 x 12 cm. in diameter, and holds about 350 c.cm. It has been found in practice that patients usually empty

the reservoir when about 250 c.cm. of urine have collected. Sealed to the upper and central portion of this bag is a thicker piece of rubber with a small opening in its centre, into which the head of the hard-rubber tube that drains the bladder is inserted. The ends of the abdominal belt are also fastened to this piece of rubber. The abdominal belt supports the entire weight of the bag, so that there is no dragging on the drainage-tube. Two rubber tubes lead from this reservoir, the lower one being used to draw off the urine and the upper one to wash out the bag. Both are provided with stoppers.

The drainage-tubes for immediate and for permanent drainage differ. That for immediate drainage is made of hard rubber, and consists of three pieces—a head 2 cm. long, with a flange at one extremity and a thread cut on the balance. This flange is to be inserted into the hole in the bag, the elasticity of the rubber making a snug fit; a saucer-shaped piece with a thread to fit the former is screwed on the head, thereby grasping the bag firmly and preventing leakage of urine, and a straight tube 10 to 15 cm. long and 1.5 cm. in diameter; 1.5 cm. from the vesical end is a flange 5 mm. in width, pierced by four holes. This piece also screws on the end of the head that projects from the bag.

The tube is put in place by introducing four silk sutures through the bladder-wall, not including the mucous coat, and passing the inner ends of the suture through the corresponding holes in the flange of the tube. The posterior surface of this flange rests on the anterior surface of the bladder. The sutures are tied, but not cut, the ends being carried out of the wound.

The tube for permanent drainage has no flange; it should project into the bladder at least 1 cm.; the vesical end should be slightly bulbous and either straight or curved, according to the direction of the sinus.

For immediate drainage a rubber tube can be attached to that connected with the reservoir, and continuous drainage into a vessel at the bedside obtained.

In the last two cases a purse-string suture was placed in the bladder-wall around the tube, in addition to the four sutures mentioned.

THE NEXT GREAT ADVANCE IN ANÆSTHESIA.

In an address on this subject (*The Lancet*, London, 1896, vol. i. No. 16) before the Society of Anæsthetists SIR BENJAMIN WARD RICHARDSON, after describing the disadvantages of the anæsthetic agents at present employed and his view of the manner in which these agents act, states it as his belief that a substance should be found which will destroy sensation without affecting consciousness. He says: "I look hopefully for a method in which, by means of a single agent, we shall be able at will to suspend common sense alone or to exalt the process into suspension of consciousness." The author has found that the element chlorine is a dangerous substance to be combined with an anæsthetic. It is this substance that renders chloroform so unsafe for the production of general anæsthesia. Richardson has used bichloride of methylene with success. It has, however, to some extent the same objectionable features as has chloroform. He thinks that methylic ether possesses the best qualities for producing general anæsthesia. The objection is that it is a gas and somewhat difficult to handle. This substance destroys sensibility

before consciousness, and recovery from its effects is exceedingly rapid. The author cites a recent death from chloroform, and calls attention to a too common error in the administration of all anesthetics.

The patient was a healthy young man who submitted himself to the narcotic for the operation of tooth-extraction; he was fully examined beforehand and gave no indications of disease; he inhaled with readiness; the operation was performed dexterously; the chloroform was perfectly pure; and the post-mortem appearance afforded no evidence of the cause of the collapse. These frequent recurrences of deaths supports the conclusions already advanced as to the danger attendant upon the reception of all bodies of the chlorine series, and they also suggest that every specimen of that series should be administered slowly and in small quantities, so that narcotism should be induced by eighteen to twenty minims at the most. The question of small and slow administrations is one of the most critical, and makes a distinction between surgery proper and anesthesia, which is of vital importance. When there was no anesthesia surgical art was of necessity predominant. That surgeon was the most brilliant man who could operate most quickly and, with a steady nerve, could perform any possible operation. As the result of the work of ages it became natural that surgery should still in our days hold the first place, and that although in nineteen cases out of twenty the surgical operations might be mere bagatelles as compared with the production of unconsciousness by a narcotic agent, it has required a long time and a hecatomb of deaths for the fact to be demonstrated that the work of the anesthetist calls for the first and most serious consideration. The old conception has continued to keep surgery in its original state and to cause anesthesia to be looked upon as a mere adjunct. There is another element of danger in respect to the question of time. As in surgery brevity was the primary process, it came to be expected, both by the public and by the profession, that brevity in anesthesia ought to keep pace. Thus, during an operation the surgeon expects the completest insensibility; and, not getting it, spurs on the anesthetist to be as brief as he wishes to be himself—a direction which the administrator, by habit, is as willing to obey as if he were simply an adjunctive aid. In the future all this must be changed. The anesthetist must know and feel that he must be left quite independent in producing painlessness, while the surgeon, however brilliant, must follow his lead and not think of operating until the patient has been pronounced by the administrator safe, senseless, and ready for the knife.

ULCERATIVE ENDOCARDITIS DUE TO THE GONOCOCCUS. GONORRHOEAL SEPTICÆMIA.

THAYER and BLUMER, after an exhaustive historical review of this subject (*Bulletin of the Johns Hopkins Hospital*, 1896, vol. vii. No. 6), record a very carefully observed case which they believe justifies the conclusion that the organism present in pure culture in the circulating blood (during life) and on the affected valves of the heart (at the time of the autopsy) was the gonococcus of Neisser, because:

(a) Its form and arrangement were characteristic.

(b) While present, free, the cocci were frequently found crowded in the protoplasm of leucocytes in the thrombus on the valve.

(c) It refused to grow upon the ordinary media.

(d) It grew readily upon a mixture of human blood and agar-agar (one-third blood).

(e) It decolorized when treated by Gram's method.

The question of the point of entry arises, of course, immediately. Nothing definite was known of the manner of life of the patient before entry. The fact that cover-slips from the vagina and the interior of the uterus showed similar diplococci, decolorizing on treatment according to the method of Gram, leaves little doubt that the infection took place through the ordinary channels.

OTOLOGY.

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NASAL HYPERTROPHY AND EAR DISEASE.

MACNAUGHTON JONES (*V. Internat. Otol. Congress: Annales des Mal. de l'Oreille*, vol. xxii.), after careful investigation into the causative relation between hypertrophy of the turbinates and deafness, based upon an examination of 300 cases of aural disease, in which he found only 69 hypertrophies of the turbinates and 18 deviations of the septum, concludes that in only a quarter of the cases can nasal obstruction be regarded as causative of deafness. It is his opinion that too much and too severe treatment has been directed toward hypertrophies of the turbinated bodies as a means of curing deafness. Especially to be condemned is turbinotomy in such connections.

ADENOIDS IN RELATION TO DEAFNESS.

ARSLAN (*V. Internat. Otol. Congress: Annales des Mal. de l'Oreille*, vol. xxii.), in an article on adenoid vegetations in the nasopharynx, concludes, regarding their origin, "that heredity and the dyscrasie are the chief etiological factors, while a damp climate and infective processes act as a subordinate part in the causation of these growths. The operation for their relief should be performed at one sitting. The knife of Moritz-Schmidt should be used, to be followed by digital crushing. Bromide of ethyl is the best anæsthetic in the ablation of adenoids, being incomparably superior to chloroform, ether, and perhaps to nitrous oxide. Adenoids should always be removed, even when small; and all children, before being accepted into schools, institutions for the deaf and dumb, and other places of education, should be subjected to a nasopharyngeal examination."

In the discussion which followed HELME maintained that the introduction of the finger into the nasopharyngeal cavity after the operation, to assure one's self of the completeness of the latter, is a *septic* procedure.

was thought wiser to be content with what had already been done. The altered viscus was then returned into the abdomen, the wound in the parietes being closed by fishgut sutures in the usual way.

The patient presented the ordinary symptoms of dilatation of the stomach in a marked degree. He had had the benefit of the various forms of palliative treatment without any relief. The patient, after leaving the hospital, was able to resume his work, which was that of a carpenter.

Under the title of "Gastropexy," DURET describes in the *Revue de Chirurgie*, June 10, 1896, an operation for the condition of dilatation and downward displacement of the stomach, which is known as gastropexy or Glenard's disease. The operation is performed as follows: An incision four inches in length is made in the middle line of the abdomen, beginning at the ensiform cartilage. The peritoneum is divided only in the lower half of the wound, the upper portion being left undivided to receive the sutures which hold the stomach in place. The pylorus and lesser curvature are then fixed to the anterior abdominal wall as follows: The stomach having been raised and placed in its normal position, a silk suture is made to include the serous and muscular coats of the pyloric extremity, and is then passed through the overlying portion of exposed peritoneum from within outward. The suture is carried backward and forward in this way until the stomach has been well anchored. The external wound is closed layer by layer.

PERFORATING ULCER OF THE DUODENUM.

J. COLLINS WARREN records a case of perforating ulcer of the duodenum in the *Boston Medical and Surgical Journal*, 1896, vol. cxxxiv. No. 19. The patient was a man, sixty-two years of age, who had suffered six years previously from a sudden, violent attack of abdominal pain, with great distention and constipation. Since that time he had had frequent attacks of acute pain in the pyloric region, for which he usually took a quarter of a grain of morphine.

When seen by Dr. Warren the patient had pain and tenderness in the right hypochondrium, extending downward toward the right iliac fossa. The temperature was 100.5° and the pulse 100.

The symptoms were thought to be probably due to perforation of the appendix, and as the patient's condition was unsatisfactory an exploratory operation was performed. The appendix was found to be normal, but as the exploration was continued in the direction of the right hypochondrium a perforation of the duodenum was discovered. About the perforation was an area of inflammation and the adjacent coils of intestine were glued together, partly closing off the general peritoneal cavity. The opening in the duodenum was closed with silk Lembert sutures, drainage was introduced, and the parietal wound was closed. Death occurred on the third day. After operation there were great thirst and vomiting of a brownish substance. There had been no motion of the bowels.

THOMSON reports in *The Lancet*, London, 1896, vol. ii. No. 1, three cases of operative interference for perforated ulcer of the stomach, two of which made excellent recoveries. The author states that it has been amply shown that life is to be saved by prompt operation in these cases. More precise